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ABSTRACT

Language Development Support Systems (Project LDSS) offered 215 limited English proficient (LEP) students at two New York City elementary schools the opportunity to improve their English skills through special language learning centers. These language learning centers were established at both schools and provided students with instruction in reading, writing, and content area subjects. Students were also trained in the use of microcomputers. Computers were used to assist in the instruction of certain subjects. The project's primary goals were to increase language development and reduce language regression in students while teaching them to become computer literate. Technical assistance and opportunities for development were made available to staff working with these students. A secondary objective of the project was to increase staff effectiveness at fulfilling job-related responsibilities. A statistically significant improvement in students' scores on the Degrees of Reading Power test indicated that the project achieved its primary objective, and observations of educators' classroom performances suggested that the secondary objective was also realized. (JL)

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OREA Report

EVALUATION SECTION REPORT

LANGUAGE DEVELOPMENT SUPPORT SYSTEMS
PROJECT L.D.S.S.

1988-89

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EVALUATION SECTION
John E. Schoener, Chief Administrator
April 1990

EVALUATION SECTION REPORT

LANGUAGE DEVELOPMENT SUPPORT SYSTEMS
PROJECT L.D.S.S.

1988-89

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LANGUAGE DEVELOPMENT SUPPORT SYSTEMS
L.D.S.S.
1988-89

SUMMARY

- L.D.S.S. was fully implemented. During the 1988-89 school year, the project offered transitional bilingual students the opportunity to strengthen their English skills through language learning laboratories and the use of computers in the writing process. The project made staff development and technical assistance available to staff, both on-site and citywide, so that they might better work with this specialized student population.

- The project met its school-based instructional program, school-based staff development, and intensive E.S.L. citywide staff development objectives.

Language Development Support Systems (L.D.S.S.) completed the second year of a New York State Incentive Grant program. The project operated under the auspices of the New York City Board of Education's Division of Multilingual and Multicultural Education (DOMME). L.D.S.S. served 215 transitional level students of limited English proficiency (LEP students) at two elementary schools. The project goals were to increase language development for transitional bilingual elementary school children, to reduce language regression in transitional LEP students, and to make these students computer literate.

The program provided language learning centers for participating students at P.S. 132 in Manhattan and P.S. 26 in the Bronx. Here, students learned how to use microcomputers and received instruction in reading, writing, and content area subjects. L.D.S.S. provided staff development and technical assistance to school-based and citywide staff who served transitional LEP students. It also offered computer instruction for parents.

Students whose LAB scores fell between the twenty-first and fortieth percentiles were elegible for the program. The Office of Research, Evaluation, and Assessment (OREA) used the Degrees of Reading Power (D.R.P.) test to measure academic achievement.

The E.S.L. objective stated that 75 percent of participating students would meet the promotional criteria as measured by the D.R.P. and LAB scores. Since promotional criteria apply only to fourth grade, the objective could not be assessed as it was proposed. However, the overall D.R.P. pretest/posttest differences were statistically significant, indicating that L.D.S.S. met its objective for English language development.

The school-based staff development objective stated that participating teachers and paraprofessionals would more effectively carry out job-related responsibilities as a result of staff development sessions. Resource specialists observed an improvement in the classroom performance of the participating staff, and they manifested satisfaction with the workshops attended. Project L.D.S.S met this objective.

The intensive E.S.L. citywide staff development objective stated that the project staff would identify project sites for field testing of special materials and would conduct staff development activities. The project conducted 66 workshops on a citywide basis, thus meeting the objective.

The conclusions, based on the findings of this evaluation, lead to the following recommendation:

- Revise the school-based instructional program objective so it is not dependent on promotional criteria, which apply only to fourth grade students.

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I. INTRODUCTION

This report documents the Office of Research, Evaluation, and Assessment's (OREA's) evaluation of the second year of the New York State Department of Education State Incentive Grant program, Language Development Support Systems (L.D.S.S.). The project had three main components: a school-based instructional program, which served 215 transitional students of limited English proficiency (LEP students) at two elementary schools; a school-based staff development component, which served staff working with the target population at the participating sites; and an intensive English as a Second Language (E.S.L.) citywide staff development component, which provided staff development and technical assistance citywide.

HISTORY OF THE PROGRAM

The Division of Multilingual and Multicultural Education (DOMME) of the New York City Board of Education requested funding from the New York State Department of Education to plan, develop, implement, and evaluate a project designed to promote the academic achievement of LEP bilingual transitional students. A more complete history and a description of the implementation and outcomes of this program can be found in the final evaluation report of 1987-88.

SETTING

P.S. 132 in Community School District (C.S.D.) 6 in Washington Heights and P.S. 26 in C.S.D. 10 in the Bronx are both located in neighborhoods with deteriorating housing, a high level

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of unemployment, and a high incidence of drug and alcohol abuse. Both schools have a high proportion of transitional bilingual students--those scoring between the twenty-first and fortieth percentiles on the Language Assessment Battery (LAB).*

PARTICIPATING STUDENTS

The project served bilingual students in the second through sixth grades who scored above the twentieth and below the fortieth percentiles on the LAB. These students were not fully prepared to function in mainstream, English-only, content area classes and needed bilingual support services to help them meet the New York City Board of Education promotional criteria.

The majority of students at P.S. 132 were Dominican; at P.S. 26, most were Puerto Rican. A large number of participating students were of low socioeconomic status and participated in the free breakfast and lunch programs at their respective schools.

STAFF

Project personnel consisted of a teacher coordinator, two resource specialists, a paraprofessional, and an office aide. The Director of DOMME supervised the teacher coordinator, who

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* The Language Assessment Battery (LAB) was developed by the Board of Education of the City of New York to measure the English-language proficiency of non-native speakers of English in order to determine whether they can participate effectively in classes taught in English. Students scoring below the twenty-first percentile on the LAB are entitled to bilingual and E.S.L. services.

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developed and coordinated a comprehensive native and second language program. The resource specialists engaged in instructional, administrative, and technical activities at each site. The paraprofessionals provided small group instruction, assisted in the selection and development of instructional materials, and participated in planning and student evaluation activities. The office aide performed other clerical duties, such as maintaining files and typing the newsletters.

The teachers who served the participating students were, for the most part, monolingual English speakers. These teachers were largely unfamiliar with innovative E.S.L. strategies and materials and the instructional uses of microcomputers.

DELIVERY OF SERVICES

Participating students were provided with an intensive program of E.S.L. instruction. Language learning centers made available computers, relevant software, and instructional materials. L.D.S.S. offered on-site staff development activities to teachers and paraprofessionals working with the targeted students, including demonstration lessons by resource specialists. The project also offered 66 workshops that provided staff development activities, curriculum development, and technical assistance on a citywide basis.

REPORT FORMAT

This evaluation report is organized as follows: Chapter II gives the evaluation methodology; Chapter III describes the activities of the project and examines its implementation objectives; Chapter IV investigates the student outcome objective; and Chapter V offers conclusions and a recommendation based upon the results of the evaluation.

II. EVALUATION METHODOLOGY

EVALUATION QUESTIONS

The evaluation assessed two major areas: program implementation and outcome. Evaluation questions included the following:

Process/Implementation

- Were learning centers set up as proposed?
- Did teachers of targeted students receive training as proposed?
- Did the project conduct staff development in the use of materials?
- Did the project implement instructional activities for developing English language proficiency as proposed?

Outcome

- What percentage of participating students demonstrated a significant increase in academic achievement?

EVALUATION PROCEDURES

Sample

An OREA field consultant interviewed the teacher coordinator, the two resource specialists, two participating tax-levy teachers, and the principal of P.S. 132. She also observed three classes. OREA provided student data forms for each student, and the project returned 215 completed forms.

Instruments

OREA developed interview and observation schedules for the use of the field consultant. Project personnel used OREA-

developed data retrieval forms to report student demographic, attendance, and achievement data. Project staff developed self-improvement checklists, which the teachers used to evaluate their cultural sensitivity, their use of E.S.L./bilingual methodologies, and the development and/or utilization of bilingual/bicultural/E.S.L. didactic materials.

Data Collection

Interviews and observations took place during the month of May. OREA sent student data forms to the project director early in the spring semester and collected them at the end of June.

Data Analysis

OREA used the Degrees of Reading Power (D.R.P.)* test to assess the achievement of academic success. L.D.S.S. students were tested at grade level each spring. Students' raw scores were converted to Normal Curve Equivalent (N.C.E.) scores, which have multiple advantages over other scoring methods. They are standard, normalized, and form an equal interval scale. ("Standard" indicates that the unit of measurement is a fraction of the standard deviation of the original distribution of raw scores; "normalized" refers to the fact that the scale is adjusted for the norm group so that its distribution has the shape of a normal distribution; and "equal interval scales" allow for legitimate aggregation or averaging of scores.) Project

*The Degrees of Reading Power test was developed by the College Board to provide information about student reading ability on the same scale used to describe the difficulty of textbooks.

students' N.C.E.s indicated their standing in relation to the national average of 50.

To assess the significance of students' achievement in English, OREA computed a correlated *t*-test on N.C.E. scores. The *t*-test determined whether the difference between the pre- and posttest scores was significantly greater than would be expected by chance variation alone.

Limitations

Since all transitional bilingual students of limited English proficiency (LEP students) at the two participating sites were involved in L.D.S.S., OREA was unable to select an equivalent control group.

III. EVALUATION FINDINGS: IMPLEMENTATION

The project provided participating students with E.S.L. and computer-assisted instruction at language learning centers. L.D.S.S. offered on-site and citywide staff development activities, curriculum development, and technical assistance.

STUDENT PLACEMENT AND PROGRAMMING

Those students who had scored between the twenty-first and fortieth percentiles on the LAB were eligible to participate in L.D.S.S. They required additional help, although they had either moved out of the system's bilingual programs or had initially tested above the twentieth percentile on the LAB and so were not categorized as LEP students. However, their deficiencies in English had caused them to fall significantly below grade level on standardized reading tests.

INSTRUCTIONAL ACTIVITIES

L.D.S.S. focussed on the writing process, using the computer as a tool to write, edit, and publish students' work at school-based learning centers.

English as a Second Language

Learning centers served to help students improve their reading and writing skills. Students in the centers read stories and then shared them with the group. Each child had the opportunity to write and edit approximately 30 stories on a word processor, printing them and reading them to their peers.

Teachers used a number of approaches in their teaching, including chanting, conversation drills, reading aloud, and reading silently. They encouraged students to make tapes of their readings so they could identify their own errors.

An OREA field consultant observed a third grade writing session in one of the learning centers. Students' work decorated the room. Each student had a folder containing his/her work. The resource specialist assigned each of the 26 students a working area for the day. Some worked on the word processors, others worked at the writing tables. The teacher and the project coordinator went around the room, checking students' work and speaking to them about it.

The field consultant also observed a third grade reading session. Students sat on the floor as the teacher read to them. When she finished the story, she questioned them about it and had students read the same story chorally and then individually. The teacher wrote fragments of sentences from the story on the board; the students completed them orally. As a final activity, individuals read their own stories to the group and answered questions.

NONINSTRUCTIONAL ACTIVITIES

L.D.S.S. provided school-based staff development, intensive citywide E.S.L. staff development, and activities for parental involvement. It proposed objectives for staff development.

School-Based Staff Development

The program objective for school-based staff development was:

- By the conclusion of the project year, the teachers and paraprofessionals working with the target population will more effectively carry out job-related responsibilities as a result of the 40 in-service workshops conducted with a 90 percent attendance rate as measured by the self-evaluation forms.

In September 1988, the project coordinator met with tax-levy bilingual teachers, paraprofessionals, and project resource specialists to formulate a plan for bilingual team teaching in the learning centers.

The school-based staff development activities included training and follow-up in the classroom. During the school year, the resource specialists gave a number of demonstration lessons to the tax-levy teachers in the learning centers. They showed them how to teach writing and reading by using E.S.L. and Native Language Arts (N.L.A.) methodologies; they explained how to use computer-based language instruction and how to interpret cultural behavior. Staff development also included individual training and follow-up in the classroom; after the resource specialists demonstrated specific strategies and teachers practiced them, a feedback process would review problems and reinforce successful behaviors. Resource specialists met on a continuous basis with classroom teachers. They planned activities for the mainstream instructional program and prepared class assignments for both the classroom and the learning center.

Site teachers and paraprofessionals attended a number of staff development sessions on second language acquisition and the writing process. Workshops were held at P.S. 26 and P.S. 132 from November until May. Attendance was high, and participants' ratings of the workshops were positive. Project L.D.S.S. met its school-based staff development objective.

Intensive Citywide E.S.L. Staff Development

- Project staff will have identified sites for field testing and will have conducted staff development in the use of materials in one of the languages targeted.

L.D.S.S. offered 66 workshops on staff development, curriculum development, and technical assistance on a citywide basis. This component of the program aimed at developing skills and otherwise assisting personnel working with LEP bilingual transitional students. L.D.S.S. met its intensive citywide E.S.L. staff development objective.

Curriculum Development

Project L.D.S.S. did not proposed an objective for this area. However, it completed a lesson plan for content area and E.S.L. instruction in grades 3 to 8.

Parental Involvement

Although parental involvement was also not a formal project objective, every effort was made to contact and involve the parents of the target students in the education of their children. At computer workshops for parents, a resource specialist offered training in computer use and also informed

parents about their children's activities in the L.D.S.S. language centers. An after-school program provided access to computer technology for participating students and their parents.

IV. EVALUATION FINDINGS: OUTCOME

INSTRUCTIONAL ACTIVITIES

L.D.S.S. proposed one outcome objective in E.S.L. for the school-based instructional program.

English as a Second Language

The evaluation objective for the school-based instructional program in E.S.L. was:

- By the conclusion of the project year, 75 percent of the participating students in the two model sites will meet the promotional criteria as measured by scores on the LAB and the D.R.P.

The objective could not be assessed as proposed, since promotional criteria only apply to the fourth grade. Also, since LAB data were not available, OREA assessed students' achievement by D.R.P. scores only. Data were available for 56 students in grades 3 through 6. (See Table 1.) Overall, these students made a mean gain of 11.8 (s.d.= 12.8) in their D.R.P. scores. This gain was statistically significant ($p<.05$). Therefore, OREA inferred that L.D.S.S. would have met its objective for English language development, had the proper data been collected.

TABLE 1

Pretest/Posttest N.C.E. Differences on the Degrees of Reading Power Test, by Grade

Grade	Number of Students	Pretest Mean	Pretest S.D.	Posttest Mean	Posttest S.D.	Difference Mean	Difference S.D.	t Value
3	3	14.3	6.4	27.0	22.5	12.7	20.8	1.1
4	21	23.0	4.5	35.9	15.9	12.9	12.8	4.6*
5	22	19.0	7.6	35.2	9.1	16.2	9.3	8.2*
6	10	23.8	6.6	23.1	10.4	-0.7	10.3	-0.2*
All[a]	56	21.1	7.0	32.9	13.5	11.8	12.8	6.9*

* P<.05

[a] Data were missing or unavailable for 157 students.

- Overall, project students made significant gains on the D.R.P.

V. CONCLUSIONS AND RECOMMENDATION

L.D.S.S. created a learning environment conducive to acquiring the language skills children needed for successful academic achievement. The project provided learning centers and assisted students in the use of computers for the writing process. The project also provided staff development activities for school-based and citywide staff working with LEP transitional bilingual students.

Without L.D.S.S., these transitional bilingual students might either have had to enter remedial programs, or might not have received the services they needed, since they were not considered LEP even though they were performing below grade level academically. There was strong evidence suggesting that L.D.S.S. had made the targeted students computer literate and greatly improved their writing skills.

The school-based instructional program objective required that 75 percent of participating students at the project sites met promotional criteria as measured by standardized test scores. This objective could not be assessed as proposed since promotional criteria only apply to the fourth grade. However, since the D.R.P. pretest/posttest gain was significant, L.D.S.S. met this objective.

L.D.S.S. offered extensive staff development and technical assistance on a citywide basis. Equally, it provided intensive training and coaching at the school level. Thus, the project met both staff development objectives, school-based and citywide.

Strengths of the program included the language learning centers, the use of computers by students in the writing process, and the staff development component.

The conclusions, based on the findings of this evaluation, lead to the following recommendation:

- Revise the school-based instructional program objective so it is not dependent on promotional criteria, which apply only to fourth grade students.